Edgewood Area - Aberdeen Proving Ground, Maryland 21010-5424
U.S. Army Soldier and Biological Chemical Command

Mobile Environmental Analytical Platform (MEAP)

FEATURES:

- Gas chromatograph-flame photometric detector
- Gas chromatograph-mass selective detector
- Gas chromatograph-atomic emission detector
- Capillary electrophoreses and automatic solvent extractor
- 30 kW diesel electrical generator
- Fully filtered fume hood

The MEAP is a fully-functional trailer laboratory that covers critical on-site chemical analysis and monitoring. Similar to the Real Time Analytical Platform (RTAP) laboratory, it is additionally capable of con-ducting soil extraction and surface water analysis. Analytical instrumentation includes a gas chromatograph-flame photometric detector and a gas chromatograph-mass selective detector. Support equipment includes a 30 kW diesel electrical generator, a fully filtered fume hood, dual refrigerators, a propane heater, three air conditioners, a sink, eyewash and a meteorological station. It also has a pass through portal to allow samples to be placed directly into the fume hood from outside the trailer to prevent possible contamination.

Beyond the quantitative determination of known materials such as mustard, the MEAP can be used qualitatively to identify unknown contaminants or novel agents. By possessing not only the gas chromatograph that uses the Flame Photometric Detector (FTD), but also the gas chromatograph employing the Mass Spectrophotometric Detector (MSD), the MEAP is able to provide a more specific and accurate analysis. The laboratory can be used for chemical warfare screening, confirmation, and identification using library spectra, and preparation of soil sample extracts according to Environmental Protection Agency protocols. Twenty-four hour turn around time is available upon request.

The MEAP is able to provide accurate and defendable identification of chemical agents; agent degradation products; World War I chemical warfare agents; and other compounds of military significance in environmental samples, as needed. It can also be used for excavations and remediations; in environmental studies; when leaks and spills are present; during emergency preparedness at events such as the Olympic games; and for screening in airports.

For additional information, please E-mail cbservices@sbccom.apgea.army.mil.

For information on Technology Transfer applications, please contact us by E-mail (technical.outreach@sbccom.apgea.army.mil) or by fax to 410-436-6529.

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